

Hospitals

An interest in treating illness can be traced back to the beginning of Islamic history when Muhammad himself stated that Allah had provided a cure for every illness. It was in the Muslim world that hospitals were first established. An early hospital that became a model for the future was founded in Damascus, staffed with doctors paid by the government. Hospitals were designed to promote health, cure diseases, and teach and expand medical knowledge. By the ninth century there were hospitals in all large Muslim towns. The most advanced hospitals—like the ‘Adudi hospital in Baghdad—attracted outstanding medical scholars and were housed in large buildings with lecture halls, libraries, pharmacies, laboratories, and patient rooms with beds. Patients with communicable diseases, as well as those recovering from surgery, were put in a separate part of the hospital.

Herbal Medicines and Pharmacies

Muslim doctors experimented with the treatment of disease through herbal medicines. Plants such as coriander (an herb of the carrot family) were used for their medicinal powers. Sedatives (drugs used to calm or tranquilize), including hashish (a strong narcotic), were used to kill pain during surgery. Al-Zahrawi, a Muslim doctor from Spain, began using antiseptics (substances derived from herbs that kill germs) to cleanse wounds, a practice unheard of in other parts of Europe until centuries later. Ibn Sina, a famous Persian healer, designed treatments involving the use of herbs and medicinal plants. In addition to making advances in herbal medicine, pharmacies developed in Baghdad to provide medications to heal illnesses. Pharmacies filled prescriptions much as present-day drug stores do. Drugs were considered so important and dangerous that they were carefully supervised, both during preparation and while in storage.

ASTROLABE

The Astrolabe is an astronomical device used to solve problems relating to time and the position of the sun and stars in the sky. The astrolabe was highly developed in the Islamic world by 800 and was later introduced to the Europeans around the time of the Crusades. Typical uses include finding the time during the day or night, finding the time of a celestial event such as sunrise or sunset, therefore you can find the length of the day. In the 10th century, Abd al-Rahman wrote a detailed essay on the astrolabe that described 1000 uses for the device. Islamic prayer times are astronomically determined, and the astrolabe could be used to determine the required times.

Algebra

Muslim scholars of the Abbasid period were very interested in furthering the developments of the ancient Greeks in mathematics. They spent hours trying to stump one another with difficult mathematical puzzles. For fun, they also made “magic boxes” that were grids containing numbers that added up to the same sum horizontally, vertically, and diagonally. The science of algebra as we know it today was introduced by Muslims. The most famous math scholar, Al Khwarazmi (al KWAH rihz mee), introduced algebra to civilization. Algebra comes from the word “al jabr,” which means “the bringing together of separate parts.” In algebra, a mathematician substitutes symbols such as x , y , or z for numbers in order to solve mathematical problems.